

**Material Data Safety Sheets
Polyurethane (TPUR)**

Section 1 – Product Identification

Product Name: Polyurethane Welding Rod
Product Code: Polyurethane Rod
Chemical Family: Thermoplastic Polyurethane
Chemical Name: Polyurethane Polyester Elastomer
Formula: N/A – Polymeric Material

Section 2 – Hazardous Ingredients

Ingredient Name/CAS Number Exposure Limits Concentration (%)

This product contains no hazardous ingredients as defined under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200.

Section 3 – Physical Properties

Melting/Freezing Point: 390 – 440°F (199 – 227°C)
Solubility in Water: Insoluble
Specific Gravity: Approximately 1.2
Bulk Density: Approximately 10.01 lbs/gal.
% Volatile by Volume: Negligible
Vapor Pressure: Negligible

Physical Form: Solid Rods
Color: Natural
Odor: Odorless/Slight
pH: Not established
Boiling Point: Not applicable

Section 4 – Fire and Explosion Information

Flash Point: Not applicable
Flammable Limits:
 Upper Explosive Limit (UEL) (%): Not established
 Lower Explosive Limit (UEL) (%): Not established
Extinguishing Media: Water, Dry Chemical: Carbon Dioxide, Foam
Special Fire Fighting Procedures: Full emergency equipment with self-contained breathing apparatus should be worn by fire fighters. During a fire irrigating, toxic gases and aerosols may be generated by thermal decomposition and combustion. See Section 8.

Section 5 – Potential Health Effects

Route(s) of Entry: Inhalation of fumes such as those evolved in the welding process.

Human Effects and Symptoms of Overexposure:

Acute Effects of Exposure:

Material is a non-reactive solid rod.

Note: Gases and fumes evolved during the thermal processing or decomposition of this material may irritate the eyes, skin or respiratory tract.

Chronic Effects of Exposure:

None known

Carcinogenicity:

The components of this product are not listed by NTP, IARC or regulated as a carcinogen by OSHA.

Medical Conditions Aggravated by Exposure:

None known

Exposure Limits:

No exposure limit has been established for this product.

Section 6 – Emergency and First Aid Procedures

First Aid for Eyes: Flush with plenty of lukewarm water. See physician if irritation is present and/or persists.

First Aid for Skin: Wash affected areas with soap and water.

First Aid for Inhalation: Remove to fresh air.

First Aid for Ingestion: Contact a physician

Section 7 – Employee Protection Recommendations

Eye Protection: Safety glasses recommended

Skin Protection: None required, but fabric gloves are recommended when handling molten material.

Respiratory: During die cleaning operations, high temperature processing and/or circumstances where decomposition is suspected, a NIOSH approved air respirator is recommended to protect against Diphenylmethane Diisocyanate (MDI) fumes.

Ventilation: Thermal processing equipment should be ventilated to control gases and fumes given off during processing. MDI could be liberated in small amounts. OSHA PEL for MDI is 0.02 ppm which is a ceiling value not to be exceeded. ACGIH TLV for MDI ISO.005 ppm TWA.

Section 8 – Reactivity Data

Stability: This is a stable material
Hazardous Polymerization: Will not occur
Incompatibilities: None known
Instability Conditions: None known
Decomposition Products: Smoldering or incomplete combustion leads to the formation of toxic gas mixtures consisting mainly of CO, CO₂, and Nitrogen; Nitrogen Oxides, Amines, Nitriles, Aliphatic and aromatic Hydrocarbons, Aldehyde, Hydrogen Cyanide and Isocyanate, and in a small amount Ketones and Acids are also formed.

Section 9 – Spill and Leak Procedures

Spill or Leak Procedures: Remove mechanically
Waste Disposal Method: Material may be incinerated or land filled in compliance with federal, state and local environmental control regulations.

Section 10 – Special Precautions and Storage Data

Storage Temperature (min/max): Ambient
Shelf Life: Not applicable
Special Sensitivity: Moisture
Handling/Storage Precautions: Rods should be stored in a clean, dry environment in sealed containers.

Section 11 – Shipping Information

DOT Shipping Name: None
Technical Shipping Name: Polyurethane Polyester Elasmomer
DOT Hazard Class: Not regulated
U.N./N.A. Number: None
Product RQ (lbs.): None
DOT Label: Non-regulated
DOT Placard: Non-regulated
Freight Class Package: Plastic materials, O/T Exp., Rods
Product Label: Polyurethane, Natural

Hazard Class Division Number: IMO/IMDG Code: None regulated

Hazard Class Division Number: ICAO/IATA: None regulated

Section 12 – Animal Toxicity Data

No animal toxicity information available.

Section 13 – Federal Regulatory Information

OSHA Status:

This product is not hazardous under the criteria of federal OSHA Hazard Communication Standard 29 CFR 910.1200. Thermal processing and decomposition fumes from this product may be hazardous as noted in Section 5.

TSCA Status:	None
CERCLA Reportable Quantity:	None
SARA Title III:	
Section 302 Extremely Hazardous Substances:	None
Section 311/312 Hazard Categories:	Non-Hazardous (311/312)
Section 313 Toxic Chemicals:	None

RCRA Status:

If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

Section 14 – Other Regulatory Information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

Component name:	Polyurethane Polyester Elastomer
CAS #:	26375-23-5
Concentration:	>99%
State Code:	PA3, NJ4

NJ4 = New Jersey other – included in 5 predominant ingredients >1%.
PA3 = Pennsylvania non-hazardous present at 3% or greater.

California Proposition 65:

To the best of our knowledge, this product contains no levels of listed substances, which the state of California has found to cause cancer, birth defects of other reproductive effects.

Massachusetts Substance List (MSL)

Hazardous substances and extraordinary hazardous substances on the MSL must be identified when present in products. To the best of our knowledge, this product contains no substances at a level which could require reporting under the statute.

HMIS Ratings

Health	Flammability	Reactivity
0	1	0

0 = minimal 1 = slight 2 = moderate 3 = serious 4 = severe

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